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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,286	06/01/2005	Masashi Gotoh	273043US3PCT	1853

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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HARRISON, MONICA D

ART UNIT	PAPER NUMBER
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2893

NOTIFICATION DATE	DELIVERY MODE
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03/20/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/537,286	<b>Applicant(s)</b> GOTOH ET AL.	
	<b>Examiner</b> Monica D. Harrison	<b>Art Unit</b> 2893	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's request for continued examination filed 11/17/08 has been entered.

Examiner acknowledges claims 1-9 have been cancelled.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. Claim 10 recites the limitation "the height of the insulating sheet" in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

3. Claim 23 recites the limitation "the height of at least one conductor portion" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

4. Regarding claim 23, "second support" being pressed "to the height of the at least one conductor portion" is confusing. There are different conductor portions which are the same height and the height of all the conductor portions remain the same in all of the drawings. Which conductor portion is the second support being pressed to? What is the second support member? Also, the power supply formed on the surface of a support member is not in the drawings.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-14 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al (5,049,221) in view of Kawashima et al (7,237,332).

5. Regarding claim 10, Wada et al discloses a method for manufacturing an electronic part in which a layer having a uniform thickness is formed, the method comprising: forming at least one conductor portion (Figure 9, reference 5) on a surface of a support member (Figure 9, reference 2); bringing an insulating sheet (Figure 9, reference 10) attached on a copper foil (Figure 9, reference 6) into contact with the at least one conductor portion from above (Figure 9, reference 6); and pressing the copper foil with the insulating sheet by a pressurizing (column 10, lines 54-68 thru column 11, lines 1-10) and a height of the at least one conductor portion using the at least one conductor portion as a stopper (Figure 9, reference 5). However, Wada et al does not disclose making the height of the insulating sheet equal to the height of the at least one conductor portion.

Kawashima et al discloses making the height of the insulating sheet equal to the height of the at least one conductor portion (Figure 1, reference 10).

It is known in the art to make the height of the insulating sheet equal to the height of the at least one conductor portion in order to keep the layers in contact with one another in the formation of the electronic part.

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Wada et al, with the teachings of Kawashima et al, for the purpose of making the height of the insulating sheet equal to the height of the at least one conductor portion in order to keep the layers in contact with one another in the formation of the electronic part.

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6. Regarding claim 11, Wada et al in view of Kawashima et al discloses wherein said at least one conductor portion and said insulating sheet are detached from said surface, after making the height of said insulating sheet equal to the height of said at least one conductor portion (Figure 1, reference 10).

7. Regarding claim 12, Wada et al discloses wherein said support member is a substrate of said electronic part (Figure 9, reference 2).

8. Regarding claims 13 and 14, Wada et al discloses wherein a B-stage sheet is used as said insulating sheet (column 7, lines 1-9).

9. Regarding claims 17-22, Wada et al discloses wherein heating is performed in addition to said pressing (column 6, lines 46-55).

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al (5,049,221) and Kawashima et al (7,237,332) in view of Kitamura et al (5,480,048).

10. Wada et al and Kawashima et al disclose the above claimed subject matter however, Wada et al and Kawashima et al do not disclose wherein a thermoplastic insulating sheet is used as said insulating sheet.

Kitamura et al discloses wherein a thermoplastic insulating sheet is used as said insulating sheet (Figure 1e, reference 107).

It is known in the art to use thermoplastic sheet as insulating sheets in order to increase wiring density in an electronic part.

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Wada et al and Kawashima et al with the teachings of Kitamura et al

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for the purpose of using thermoplastic sheet as insulating sheets in order to increase wiring density in an electronic part.

***Allowable Subject Matter***

11. Claims 23-35 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

12. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose nor fairly suggest a method for manufacturing an electronic part in which a layer having a uniform thickness is formed pressing by a pressurizing means the second support member including the copper foil with the insulating sheet to the height of the at least one conductor portion using said at least one conductor portion; and removing said power supply film (claim 23) and in the context of the recited apparatus along with its depending claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica D. Harrison whose telephone number is (571)272-1959. The examiner can normally be reached on M-F 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on 571-272-1945. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monica D. Harrison/  
Examiner, Art Unit 2893

mdh  
March 16, 2009

/Davienne Monbleau/  
Supervisory Patent Examiner, Art Unit 2893